

Severe Dermatitis and "Biological" Detergents

SIR.—A number of patients with unusually severe hand dermatitis have been seen recently in this department. The clinical picture was distinctive enough to suggest a common aetiology, and it emerged that all the patients had used a "biological" detergent shortly before the onset of the dermatitis. In a short time 13 cases were collected, all adults, who had had dermatitis for from 5 to 20 weeks. None of these patients had previous histories of hand eczema or other relevant skin disorder, nor had any experienced difficulty with conventional washing powders. Ten patients used only one packet of "biological" detergent, and some reported only a single contact. The onset of burning and irritation was noticed from within a few hours to a week later. The involved skin showed a raw erythema in addition to acute eczematous changes, particularly noticeable on the backs of the hands. A secondary light-induced eczema was observed in 10 cases on distant parts of the body, and in several instances the patients remarked that sunlight caused their hands to burn, the secondary eruptions often appearing after exposure to sun. The response to treatment, including topical steroids, was consistently poor, and the chronicity of these cases was a striking feature.

Several authors^{1, 2, 3} have failed to incriminate detergents as directly responsible for eczema, and the influence of these products on this condition is thought to be mainly in the enhancement of the effects of other factors, such as climatic conditions, other irritants, and allergens.⁴ When reviewing the series of cases reported here, despite the difficulty in excluding with certainty other possible factors in each case, it was difficult not to conclude that the detergent used was playing a significant role in the causation of the dermatitis.

Skin testing to fresh solution of detergent was carried out using occlusive patch tests, the results being read at 24 hours. At a concentration of 0.5%, one-third of the twelve patients tested showed marked erythema and

oedema, which was not observed when they were tested simultaneously with a preparation identical except for the absence of the enzyme additives. A series of 10 controls was negative to both substances. When tested to solutions of 0.25% no positive reactions were observed in either series. It has been shown^{5, 6} that false positive reactions to primary irritant patch tests may be encountered, even at sites distant from the clinically observed dermatitis, until the latter has been healed for at least three months, a condition not fulfilled here. Therefore, the only conclusion that can so far be drawn from these results is that the presence of enzyme additives demonstrably increases the potential toxicity of the detergent to the skin. The concentration recommended by the manufacturer for hand washing considerably exceeds 0.5%, but the conditions of exposure are not comparable to those of the occluded patch test.

These observations suggest that "biological" detergents may be capable of inducing skin damage of a more aggressive type than that of ordinary detergents. It is possible that the proteolytic action of the enzymes on the keratin may potentiate the effect of other injurious influences on the skin to a greater degree than with conventional detergents. When eczema does develop, this series would suggest that it may be of a particularly severe and persistent type.

I am grateful to Drs. I. B. Sneddon and R. E. Church for permission to report cases under their care.—I am, etc.,

N. E. JENSEN.

Rupert Hallam Department of
Dermatology,
Hallamshire Hospital,
Sheffield, Yorks.

REFERENCES

- 1 Suskind, R. R., et al., 1963, *Archives of Dermatology* 88, 117.
- 2 Bettley, F. R., 1965, *British Journal of Dermatology* 1965 77, 98.
- 3 Middleton, J. D., 1968, *British Journal of Dermatology* 80, 437.
- 4 Hjorth N., Wilkinson D. S., 1969, *British Journal of Dermatology* 81, 311.
- 5 Björnberg, A., 1968, *Skin Reactions to Primary Irritants in Patients with hand eczema*. Isacson Tryckeri, Gothenburg.
- 6 Wilson, H. T. H., 1965, *British Journal of Dermatology* 67, 291.

Epidemic Malaise

SIR.—I have read with interest the contributions to your journal by Drs. C. P. McEvedy and A. W. Beard (3 January, pp. 7 and 11).

The Middlesex hospital series (1952) was apparently the first recorded institutional outbreak in Europe, and it was of particular interest to me. At that time I was physician with responsibility for the poliomyelitis unit at the Western Hospital, London, to which I had been appointed in 1938. The hospital had a virtual monopoly for the reception and care of the acute disease. This provided me with considerable experience. In view of the acceptance by the Middlesex medical staff that they were dealing with poliomyelitis, and the fear that things might be getting out of hand, I was asked by the then senior neurologist, Dr. Douglas McAlpine, towards the end of the outbreak—when I believe the 14 nurses affected were still confined to the special ward in that hospital—if I would see his cases.

After examination of a representative selection of the patients and their records I

was convinced that what I saw had no real resemblance to poliomyelitis as I had seen it over the years. I was particularly impressed by the recorded absence of changes in the cerebrospinal fluid, which in my experience should rule out any acceptance of that disease. In conversation with the patients I noted in most of them a state of apathy and depression which I would never expect to meet in poliomyelitis—where, indeed, in contrast one expects alertness, co-operativeness, and intense interest in test movements and manipulation. Another, to me, curious clinical feature was, in a number of cases, marked local muscle or soft tissue hypersensitivity, particularly towards the extremity of the lower limbs.

I took the view then that what I saw was sufficiently objective to rule out any suspicion that the "outbreak" could be explained as some form of hysteria. At the time I wondered whether some form of radiculitis might be the explanation. Maybe the authors' suggested alternative diagnosis of "myalgia nervosa" could be linked with

organic radicular defect. Pure guesswork, by me of course, which no doubt any neuropathologist could discount with ease.—I am, etc.,

W. HOWLETT KELLEHER.

Poole,
Dorset.

SIR.—The letters concerning Drs. C. P. McEvedy and A. W. Beard's article on epidemic myalgic encephalomyelitis almost amount to a secondary wave of hysteria (17 January p. 170). Can we not acknowledge that there is never one cause for a patient getting ill? Virus and hysteria are with us always, and the wise doctor never thinks in terms of "either . . . or." Whether the patient has hepatitis or a slipped disc, the timing and severity of the illnesses are always affected by emotional factors to some degree. There may be a virus responsible for the Royal Free disease, but there is no need to wax hot in denying emotional factors as well.—I am, etc.,

C. H. GILL.

London N.W.3.

SIR.—In congratulating Drs. C. P. McEvedy and A. W. Beard (3 January, p. 7) on their beautiful and timely diagnostic deciphering of the clinical records of the Royal Free epidemic of 1954, no diminution is intended in recalling that the possibility of a hysterical process was not overlooked at the time. In fact it was held to be the most likely, particularly early in the epidemic. Later, as medical staff of various seniority succumbed, such a suggestion was silenced by unspoken agreement.

This is because the diagnosis of hysteria was, and still is, regarded as derogatory, even accusatory, by those unable to differentiate it from malingering. Even now it is rarely applied except to girls of subnormal intelligence. Think of "shell shock." Think of the present epidemic, concurrent with that of influenza, of apyrexial "influenza" attacking men and women and even doctors. Having recently experienced a sharp attack of hysterical paraplegia I know with my heart, as well as my head, that it is terrifying, and not in any way assumed, and neither my age nor my profession protected me.

Before the pathology is obscured by time perhaps the cause of the Royal Free epidemic could be demonstrated without undue psychiatric immodesty.—I am, etc.,

MARJORIE HARE.

Waringham Park Hospital,
Surrey.

SIR.—One must congratulate Drs. C. P. McEvedy and A. W. Beard (3 January, p. 7) on their interesting elucidation of the Royal Free Epidemic. However, outbreaks of hysterical illness in populations of young women are not a new phenomenon, for an epidemic that was not too dissimilar occurred in a Lancashire cotton mill in 1787 and was reported in the *Gentleman's Magazine*.¹ On that occasion 23 girls and young women, plus one man, out of a total of 2-300 employees, were within a few days of each other seized with symptoms of anxiety,